



# RCRA Compliance Inspection Report

WA 8967  
7/14/2015  
4A

## U.S. Department of Energy Hanford

325 Laboratory Building

Richland, Washington


WA7890008967

July 14, 2015

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8/13/2015  
Report Date

  
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Peer Review Signature

7/31/2015  
Date

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### **Disclaimer**

This report is a summary of observations and information gathered from the facility at the time of the inspection. The information provided does not constitute a final decision on compliance with RCRA regulations, nor is it meant to be a comprehensive summary of all activities and processes conducted at the facility.



## Section A: Basic Facility and Inspection Information

### Facility Information

Handler Name: U.S. Department of Energy Hanford  
Handler ID Number: WA7 89000 8967  
Facility Contact/Title: Cliff Clark, Regulatory Compliance Manager  
Facility Location Address: Hanford Facility, Richland Washington  
Facility Mailing Address: P.O. Box 550, Richland, Washington 99352-0550  
Contact Phone Number: (509) 376-9333  
Contact Email Address: clark.cliff@rl.doe.gov  
GPS Coordinates of Site: Lat: 46.557143  
Long: -119.54328

### Inspection Information

Inspection Type: Focused Compliance Inspection (FCI) for the  
325 Laboratory Building  
Inspection Date: July 14, 2015  
Arrival Time: 8:18 am PDT  
Departure Time: 11:23 pm PDT  
Inspection Team: Jack Boller, RCRA Compliance Officer, EPA  
Matthew Vojik, Inspector, EPA  
Jared Mathey, RCRA Compliance Officer, Ecology

## Section B: General Facility Information

Owner/Operator Information: The owner of the facility is the United States Government. The operator is the U.S. Department of Energy (DOE). The DOE uses multiple contractors to operate the facility. DOE has contracted with Battelle's Pacific Northwest National Laboratory (PNNL) to manage the 325 Laboratory Building (325) unit group covered by this inspection.

Site Location: The Hanford Nuclear Reservation is an approximately 600 square mile facility located in central Washington State immediately north of Richland, Washington. It is bounded on the north and east by the Columbia River. Immediately to the south of the Reservation is the Richland/Kennewick/Pasco Tri-cities urban area. The area north of the river and west of the facility is the Hanford Reach National Wildlife Preserve. The surrounding areas to the east of the facility are sparsely populated agricultural land. According to EJSCREEN, the facility is not in an environmental justice area. There are areas within the facility that have cultural significance to various central Washington and central Oregon Native American Nations.





This inspection focused on waste management activities at the 325 Laboratory Building unit group. It is in the 300 Area which is located at the south end of the Hanford facility approximately 1 mile from the southern boundary of the facility.

Background and Activities: The following information was obtained from facility personnel during the inspection. The 325 Laboratory conducts research as well as analysis to support waste management. The 325 Building also houses permitted hazardous waste treatment and storage areas and less than 90 day accumulation areas. The main container storage units are in rooms 520, 520A, 524, and 528. Any release of liquid waste or any fire suppression water from the sprinkler system in rooms 520, 520A, and 528 would flow through floor drains into a "firewater" tank in the basement of the building. There are several laboratory rooms which accumulate waste in satellite accumulation areas and a central less than 90 day accumulation area. There is also a shielded analytical laboratory (SAL) in the building which consists of six hot cells. One of the hot cells is a permitted storage area and there is a less than 90 day area behind the cells. Any releases from this area flow into a second tank in the basement. This is tank TK-1 and it is permitted for storage and treatment of hazardous waste.

### Section C: Regulatory Information

Compliance History: The Hanford facility is a RCRA Significant Non-Complier (SNC). It has been in SNC status since the mid 1990's. For more details see the inspection report for the April 1, 2014 Hanford RCRA inspection.

Regulatory Status: The Hanford facility is a permitted Treatment, Storage, and Disposal facility as well as a large quantity generator of hazardous waste and a large quantity handler of universal waste. The Permit was originally issued by Ecology in 1994 and had an expiration date of September 27, 2004. DOE has filed an application to renew the Permit. Pursuant to the provisions found in WAC173-303-806(7)(a), DOE will continue to operate under the original Permit and modifications that are made to that permit until a new permit is issued. The projected issuance date of the new permit is sometime in 2016.

The Permit has undergone several modifications. The current active Permit, including modifications, is Permit Revision 8C, Class 1 Modification, dated March 31, 2012 (Permit). It identifies multiple hazardous waste unit groups within the facility. Within each unit group, there may be several individual treatment, storage, or disposal units. The Permit includes a site wide contingency plan and training plan that covers all of the operating and closing units. It has final status operating standards for some of the unit groups. The Permit requires those units that do not have final status permit standards to operate in compliance with the interim status standards until such time that final status permit standards are implemented for that unit. Final status permit standards can be implemented either through a permit modification or issuance of a new permit. The Part A Permit Application Form for each unit group identifies the activities being conducted in that unit group and wastes that are potentially being managed in the unit group.

Operating standards for the treatment and storage units at 325 are in the current (March 31, 2012) Permit. It identifies the units as tank and container storage and treatment units. The main container storage areas are in rooms 520, 520A, 524, and 528. There is also a permitted container storage area in the SAL. The permitted tank storage and treatment is conducted in tank TK-1 located in the basement under the SAL. 325 is also a large quantity generator of hazardous waste which is accumulated in satellite accumulation areas in the laboratories and less than 90 day accumulation areas in the building.

Site Hazardous Waste Information: According to the unit's Part A of the permit application approved by Ecology on 10/9/2008 and information obtained during the inspection, 325 is permitted to manage 43 characteristic wastes, 7 F-listed wastes, 123 P-listed wastes, and 246 U-listed wastes as well as 5





state only regulated dangerous wastes. Facility personnel told us that most of the wastes managed in 325 are classified as radioactive mixed waste. The Department of Energy, the Washington State Department of Health, the Washington State Department of Ecology, and the EPA all have regulatory authority over mixed waste. We observed that a wide variety of laboratory wastes, fluorescent lamps, batteries, used oil and aerosol cans are generated at 325.

## **Section D: Description of Inspection**

Purpose of Inspection: This was a focused compliance evaluation inspection (FCI) of 325 to assess compliance with the Hanford Facility Resource Conservation and Recovery Act Permit, Permit Revision 8C, Class 1 Modification, dated March 31, 2012 (Permit) which incorporates WAC 173-303-400 interim status standards. The inspection also assessed compliance with the following regulations of Washington's federally authorized hazardous waste program: WAC 173-303-170 through 230 standards for hazardous waste generators; WAC 173-303-573 standards for universal waste; and WAC 173-303-515 requirements for management of used oil.

Inspection Entry and Opening Conference: On July 9, 2015 at approximately 2:00 pm I notified Department of Energy and PNNL personnel of our intent to inspect 325 on July 14, 2015.

The inspection team arrived at 325 at 8:18 am on July 14, 2015. We were met by Gene Grohs the Environmental Manager for PNNL. After signing in, Mr. Grohs led us to a conference room where we were joined by several representatives of PNNL for an opening conference. A list of attendees is in Attachment C. We presented our inspector credentials and we began the opening conference.

In the opening conference, I explained that this would be an EPA lead inspection and that we would be evaluating compliance with the Permit and the Ecology federally-authorized Dangerous Waste Regulations. After answering a few logistical questions regarding file reviews and document requests we ended the opening conference. We then were issued dosimeters by PNNL and began a tour of the building.

### Inspection Summary:

During the tour we looked at the regulated units as well as waste generation points in several laboratories. We observed waste management practices as well as looking for wastes that may not have been identified previously. Following the tour, we reviewed some documents on site and obtained copies of others to review in our office. The documents reviewed included hazardous waste manifests, training records, the contingency plan and building emergency plan, the waste analysis plan, inspection logs, and the waste inventory. The areas inspected during the tour are listed below. In addition to our observations, our sources of information for each area visited are given below.

#### Hazardous waste storage units in rooms 520, 520A, 524, and 528 Contact: Laurie True

We observed several metal cabinets containing numerous small containers (ranging in size from a few milliliters to 4 liter bottles) of various waste streams as well as a few drums of waste.

#### Less than 90 day area in room 529 Contact: Gene Grohs

We observed four metal cabinets each containing from 1 to 7 small containers of waste. All were closed, labeled and dated.

#### Analytic Laboratories Contact: Chuck Soderquist

We observed several satellite accumulation areas in fume hoods. Each satellite area was clearly marked with a sign and had a log sheet for recording additions to the waste container





Hot Cells (SAL) Contact: Gene Grohs

We observed two 6 liter and one 1 gallon container in the SAL unit. Due to entry restrictions because of radiation levels we did not observe the less than 90 day area in the SAL. We also observed via remote camera the TK-1 storage tank that is located in the basement beneath the SAL. It is used to collect spills and releases from the SAL. According to Mr. Grohs the tank has been empty for 8 years.

Shop Contact: Gene Grohs

We observed a collection area for batteries which are managed as universal waste. We also observed the accumulation area for fluorescent lamps. Facility personnel explained that lamps are crushed in a crusher unit and have been sampled and analyzed to show that they do not designate as hazardous waste.

Outside accumulation areas Contact: Gene Grohs

Outside of the building we observed a shed for accumulating used oil. There was one drum in the shed. It was properly labeled. There was also a container for collecting aerosol cans prior to recycling.

Any issues or items of interest that the inspection team identified are discussed below.

During the onsite file review, Mr. Van Arsdale, the Mixed Waste Operator Manager, explained that offsite shipments of mixed waste occur on an 18 to 24 month cycle to assure a full load and make shipping more economical. Storage of dangerous waste for more than one year is prohibited unless the owner/operator can demonstrate that the storage is solely for the purpose of accumulating such quantities of waste as are necessary to facilitate proper recovery, treatment or disposal. Following the onsite inspection, I received the waste inventory list for the waste that was onsite at the time of the inspection. I reviewed the inventory and found that there were a total of forty-one containers of various size that had been onsite over one year. Of those forty-one, seven had been onsite for four years or more.

Through the TPA, EPA and Ecology have agreed to allow the Hanford facility to store some hazardous wastes in excess of one year. This extended storage is allowed only for wastes for which there is no treatment technology, provided that the waste is on an agreed schedule for treatment to meet LDR standards before 2030. As part of this agreement DOE must file an annual report identifying what waste has been treated and what waste is awaiting treatment. In reviewing this report in the past it was found that the report lacks enough detail to determine if specific containers are included and therefore allowed to be stored for more than one year.

Closing Conference: Following the onsite file review, we conducted a closing conference. We discussed the lamp crushing and Mr. Mathey said he would send the facility the most current State guidance on management of fluorescent lamps.

I stated that until we had completed review of the documents we were taking copies of, we couldn't say whether or not we observed any violations.

I thanked the facility representatives for their time and cooperation and departed the site at 11:23 am.



## **ATTACHMENT A**

Aerial Photo

USDOE Hanford (325)  
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My Notes



On the go? Use [m.bing.com](http://m.bing.com) to find maps, directions, businesses, and more



Bird's eye view maps can't be printed, so another map view has been substituted.



## **ATTACHMENT B**

### **Photo Log**

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